

WHAT IS CLAIMED IS:

1. A vertical sharpness adjustment device comprising:
a terminal to which a vertical sharpness adjustment control signal is applied by a viewer of a TV receiver;

5 a control circuit to which the vertical sharpness adjustment control signal is applied from the terminal; and

a vertical sharpness adjustment circuit which adjusts a degree of vertical sharpness adjustment on a video signal according to the vertical sharpness adjustment control signal from the control circuit.

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2. The vertical sharpness adjustment device of claim 1, wherein the vertical sharpness adjustment circuit comprises:

a video input terminal to which the video signal is applied;

a first 1H delay line to delay the video signal by one horizontal period; and

15 a second 1H delay line to delay an output of the first delay line by one horizontal period.

3. The vertical sharpness adjustment device of claim 2, wherein the vertical sharpness adjustment circuit adjusts the degree of vertical sharpness adjustment by

20 adjusting a level of a signal resulted from operations performed on the video signal at the video input terminal, a video signal from the first 1H delay line and a video signal from the second 1H delay line.

4. The vertical sharpness adjustment device of claim 1, wherein the control
25 circuit generates a signal to display the degree of vertical sharpness adjustment on a screen of the TV receiver.

5. The vertical sharpness adjustment device of claim 4, wherein the control circuit comprises a microcomputer.

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6. The vertical sharpness adjustment device of claim 1, wherein the vertical sharpness adjustment circuit comprises:

a video input terminal to which the video signal is applied;
a first 1H delay line to delay the video signal by one horizontal period;
a second 1H delay line to delay an output signal of the first 1H delay line by one horizontal period;

5 a first adder to add the video signal and an output signal of the second 1H delay line;
a subtractor to subtract an output signal of the first adder from the output signal of the first 1H delay line;

a level adjustment circuit to adjust a level of an output signal of the subtractor; and

a second adder to add an output signal of the level adjustment circuit and the output
10 signal of the first 1H delay line.

7. The vertical sharpness adjustment device of claim 1, wherein the vertical sharpness adjustment circuit comprises:

a video input terminal to which the video signal is applied;

15 a first 1H delay line to delay the video signal by one horizontal period;

a second 1H delay line to delay an output signal of the first 1H delay line by one horizontal period;

a first adder to add the video signal and an output signal of the second 1H delay line;

an attenuator to halve a level of an output signal of the first adder;

20 a subtractor to subtract an output signal of the attenuator from the output signal of the first 1H delay line;

a level adjustment circuit to adjust a level of an output signal of the subtractor; and

a second adder to add an output signal of the level adjustment circuit and the output
signal of the first 1H delay line.

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8. The vertical sharpness adjustment device of claim 2, wherein the first 1H delay line and the second 1H delay line are also used as delay lines for a comb filter to separate a composite video signal into a brightness signal and a chroma signal.

30 9. A TV receiver comprising a vertical sharpness adjustment device which comprises:

a terminal to which a vertical sharpness adjustment control signal is applied by a viewer of a TV receiver;

a control circuit to which the vertical sharpness adjustment control signal is applied from the terminal; and

5 a vertical sharpness adjustment circuit which adjusts a degree of vertical sharpness adjustment on a video signal according to the vertical sharpness adjustment control signal from the control circuit.

10 10. The TV receiver of claim 9, wherein the vertical sharpness adjustment circuit comprises:

a video input terminal to which the video signal is applied;

a first 1H delay line to delay the video signal by one horizontal period; and

a second 1H delay line to delay an output of the first delay line by one horizontal period.

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11. The TV receiver of claim 10, wherein the vertical sharpness adjustment circuit adjusts the degree of vertical sharpness adjustment by adjusting a level of a signal resulted from operations performed on the video signal at the video input terminal, a video signal from the first 1H delay line and a video signal from the second 1H delay line.

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12. The TV receiver of claim 9, wherein the control circuit generates a signal to display the degree of vertical sharpness adjustment on a screen of the TV receiver.

25 13. The TV receiver of claim 12, wherein the control circuit comprises a microcomputer.

14. The TV receiver of claim 9, wherein the vertical sharpness adjustment circuit comprises:

a video input terminal to which the video signal is applied;

30 a first 1H delay line to delay the video signal by one horizontal period;

a second 1H delay line to delay an output signal of the first 1H delay line by one horizontal period;

a first adder to add the video signal and an output signal of the second 1H delay line;
a subtractor to subtract an output signal of the first adder from the output signal of the first 1H delay line;
a level adjustment circuit to adjust a level of an output signal of the subtractor; and
5 a second adder to add an output signal of the level adjustment circuit and the output signal of the first 1H delay line.

15. The TV receiver of claim 9, wherein the vertical sharpness adjustment circuit comprises:

10 a video input terminal to which the video signal is applied;
a first 1H delay line to delay the video signal by one horizontal period;
a second 1H delay line to delay an output signal of the first 1H delay line by one horizontal period;
a first adder to add the video signal and an output signal of the second 1H delay line;
15 an attenuator to halve a level of an output signal of the first adder;
a subtractor to subtract an output signal of the attenuator from the output signal of the first 1H delay line;
a level adjustment circuit to adjust a level of an output signal of the subtractor; and
a second adder to add an output signal of the level adjustment circuit and the output
20 signal of the first 1H delay line.

16. The TV receiver of claim 10, wherein the first 1H delay line and the second 1H delay line are also used as delay lines for a comb filter to separate a composite video signal into a brightness signal and a chroma signal.